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<110> Li, Yi
Cao, Liang
Rosen, Craig

<120> Human Amine Transporter

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<150> US 09/502,018
<151> 2000-02-11

<150> US 09/139,675
<151> 1998-08-25

<150> US 08/471,496
<151> 1995-6-6

<150> WO PCT/US95/02645
<151> 1995-03-01

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<170> PatentIn Ver. 2.0

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gcccataacg caaacggcct ctccccgcgc gttggccat tcattaatgc agctggcacg 180
acaggtttcc cgactggaaa gcgggcagtg agcgcaacgc aattaatgtg agtagctca 240
ctcattaggc accccaggct ttacacttta tgcttccggc tcgtatgtt tgtgaaattt 300

tgagcggata acaatttcac acaggaaaca gctatgacca tgattacgcc aagctcgaaa 360
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atg ctc cgg ccc att ctg gat gct ccc cag cgg ttg ctg aag gag ggg 766
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aga gcg tcc cgg cag ctg gtg ctg gtg gta ttc gtc gct ttg ctc 814
Arg Ala Ser Arg Gln Leu Val Leu Val Val Phe Val Ala Leu Leu
20 25 30

ctg gac aac atg ctg ttt act gtg gtg gtg cca att gtg ccc acc ttc 862
Leu Asp Asn Met Leu Phe Thr Val Val Val Pro Ile Val Pro Thr Phe
35 40 45

cta tat gac atg gag ttc aaa gaa gtc atc tct tct ctg cac ctc ggg 910
Leu Tyr Asp Met Glu Phe Lys Glu Val Ile Ser Ser Leu His Leu Gly
50 55 60

cat gcc gga agt tcc cca cat gcc ctc gcc tct cct gcc ttt tcc acc 958
His Ala Gly Ser Ser Pro His Ala Leu Ala Ser Pro Ala Phe Ser Thr
65 70 75 80

atc ttc tcc ttc aac aac acc acc gtg gct gtt gaa gaa agc gta 1006
Ile Phe Ser Phe Phe Asn Asn Asn Thr Val Ala Val Glu Glu Ser Val
85 90 95

cct agt gga ata gca tgg atg aat gac act gcc agc acc atc cca cct 1054
Pro Ser Gly Ile Ala Trp Met Asn Asp Thr Ala Ser Thr Ile Pro Pro
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cca gcc act gaa gcc atc tca gct cat aaa aac aac tgc ttg caa ggc 1102
Pro Ala Thr Glu Ala Ile Ser Ala His Lys Asn Asn Cys Leu Gln Gly
115 120 125

aca ggt ttc ttg gag gaa gag act acc cgg gtc ggg gtt ctg ttt gct 1150
Thr Gly Phe Leu Glu Glu Thr Thr Arg Val Gly Val Leu Phe Ala
130 135 140

tca aag gct gtg atg caa ctt ctg gtc aac cca ttc gtg ggc cct ctc 1198
Ser Lys Ala Val Met Gln Leu Leu Val Asn Pro Phe Val Gly Pro Leu
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acc aac agg att gga tat cat atc ccc atg ttt gct ggc ttt gtt atc 1246
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atg ttt ctc tcc aca gtt atg ttt gct ttt tct ggg acc tat act cta 1294
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aga gga cga gcc atg gga act gct ctg ggg ggc ctg gcc ttg ggg ttg			1438
Arg Gly Arg Ala Met Gly Thr Ala Leu Gly Gly Leu Ala Leu Gly Leu			
225	230	235	240
ctg gtg gga gct ccc ttt gga agt gta atg tac gag ttt gtt ggg aag			1486
Leu Val Gly Ala Pro Phe Gly Ser Val Met Tyr Glu Phe Val Gly Lys			
245	250	255	
tct gca ccc ttc ctc atc ctg gcc ttc ctg gca cta ctg gat gga gca			1534
Ser Ala Pro Phe Leu Ile Leu Ala Phe Leu Ala Leu Leu Asp Gly Ala			
260	265	270	
ctc cag ctt tgc atc cta cag cct tcc aaa gtc tct cct gag agt gcc			1582
Leu Gln Leu Cys Ile Leu Gln Pro Ser Lys Val Ser Pro Glu Ser Ala			
275	280	285	
aag ggg act ccc ctc ttt atg ctt ctc aaa gac cct tac atc ctg gtg			1630
Lys Gly Thr Pro Leu Phe Met Leu Leu Lys Asp Pro Tyr Ile Leu Val			
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gct gca ggg tcc atc tgc ttt gcc aac atg ggg gtg gcc atc ctg gag			1678
Ala Ala Gly Ser Ile Cys Phe Ala Asn Met Gly Val Ala Ile Leu Glu			
305	310	315	320
ccc aca ctg ccc atc tgg atg atg cag acc atg tgc tcc ccc aag tgg			1726
Pro Thr Leu Pro Ile Trp Met Met Gln Thr Met Cys Ser Pro Lys Trp			
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cag ctg ggt cta gct ttc ttg cct gcc agt gtg tcc tac ctc att ggc			1774
Gln Leu Gly Leu Ala Phe Leu Pro Ala Ser Val Ser Tyr Leu Ile Gly			
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Ser Leu Ile Gly Met Leu Val Val Gly Thr Ser Leu Leu Cys Val Pro			
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Leu Xaa Ile Gly Met Val Glu Ser Ser Met Met Pro Ile Met Gly His			
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Trp Thr Ser His His Gly		
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35 40 45

Leu Tyr Asp Met Glu Phe Lys Glu Val Ile Ser Ser Leu His Leu Gly
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Pro	Ser	Gly	Ile	Ala	Trp	Met	Asn	Asp	Thr	Ala	Ser	Thr	Ile	Pro	Pro
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Ser Leu Ile Gly Met Leu Val Val Gly Thr Ser Leu Leu Cys Val Pro
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Leu Ala His Lys Asn Phe Gly Leu Ile Gly Pro Asn Ala Gly Leu Gly
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Leu Xaa Ile Gly Met Val Glu Ser Ser Met Met Pro Ile Met Gly His
405 410 415

Leu Val Asp Pro Arg His Thr Ser Val Tyr Gly Ser Val His Ala Ile
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Ala Asp Val Ala Phe Cys Met Gly Phe Ala Ile Gly Tyr Ser Glu Ser
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Leu Tyr Ala Thr Glu Phe Lys Asp Ser Asn Ser Ser Leu His Arg Gly
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Pro Ser Val Ser Ser Gln Gln Ala Leu Thr Ser Pro Ala Phe Ser Thr
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Ile Phe Ser Phe Phe Asp Asn Thr Thr Thr Val Glu Glu His Val
85 90 95

Pro Phe Arg Val Thr Trp Thr Asn Gly Thr Ile Pro Pro Pro Val Thr
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Glu Ala Ser Ser Val Pro Lys Asn Asn Cys Leu Gln Gly Ile Glu Phe
115 120 125

Leu Glu Glu Glu Asn Val Arg Ile Gly Ile Leu Phe Ala Ser Lys Ala
130 135 140

Leu Met Gln Leu Leu Val Asn Pro Phe Val Gly Pro Leu Thr Asn Arg
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165 170 175

Ser Thr Leu Met Phe Ala Phe Ser Gly Thr Tyr Ala Leu Leu Phe Val
180 185 190

Ala Arg Thr Leu Gln Gly Ile Gly Ser Ser Phe Ser Ser Val Ala Gly
195 200 205

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210 215 220

Ala Met Gly Ile Ala Leu Gly Gly Leu Ala Leu Gly Leu Leu Val Gly
225 230 235 240

Ala Pro Phe Gly Ser Val Met Tyr Glu Phe Val Gly Lys Ser Ser Pro
245 250 255

Phe Leu Ile Leu Ala Phe Leu Ala Leu Leu Asp Gly Ala Leu Gln Leu
260 265 270

Cys Ile Leu Trp Pro Ser Lys Val Ser Pro Glu Ser Ala Met Gly Thr
275 280 285

Ser Leu Leu Thr Leu Leu Lys Asp Pro Tyr Ile Leu Val Ala Ala Gly
290 295 300

Ser Ile Cys Leu Ala Asn Met Gly Val Ala Ile Leu Glu Pro Thr Leu
305 310 315 320

Pro Ile Trp Met Met Gln Thr Met Cys Ser Pro Glu Trp Gln Leu Gly
325 330 335

Leu Ala Phe Leu Pro Ala Ser Val Ala Tyr Leu Ile Gly Thr Asn Leu
340 345 350

Phe Gly Val Leu Ala Asn Lys Met Gly Arg Trp Leu Cys Ser Leu Val
355 360 365

Gly Met Val Ala Val Gly Ile Ser Leu Leu Cys Val Pro Leu Ala His
370 375 380

Asn Ile Phe Gly Leu Ile Gly Pro Asn Ala Gly Leu Gly Phe Ala Ile
385 390 395 400

Gly Met Val Asp Ser Ser Leu Met Pro Ile Met Gly Tyr Leu Val Asp
405 410 415

Leu Arg His Thr Ser Val Tyr Gly Ser Val Tyr Ala Ile Ala Asp Val
420 425 430

Ala Phe Cys Val Gly Phe Ala Ile Gly Pro Ser Thr Gly Gly Val Ile
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Val Gln Val Ile Gly Phe Pro Trp Leu Met Val Ile Ile Gly Thr Ile
450 455 460

Asn
465